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Impacts


The impact of hydrogen energy becoming more prolific can be evaluated in two ways. The immediate and visible implications and the longer term changes. There are already noticeable changes to infrastructure and the technologies in development but environmental and socio-economic factors and the impacts on oil imports and CO₂ emissions may only become apparent as time goes on.

The ultimate vision is to realize a sustainable society fuelled by green, renewable hydrogen. The impact of this on daily life could include

- Cleaner vehicles, free from the fluctuations in oil prices.
- More reliable power for homes and buildings. Stored hydrogen will be available for utilisation during peak demand periods to create electricity.
- Charging as we know it changing and enabling a world of greater mobile connectivity.
- Bridging the gap between fossil fuels and renewable energy sources. Incorporation of Hydrogen fuel cell structures into existing fossil fuel-driven infrastructure making hydrogen fuel cell power immediately viable.
- Distributed power becoming more commonplace allowing freedom from the grid and a scenario in which we eventually become independent producers of our own energy.

Improved fuel cells could soon provide auxiliary equipment power on commercial aircraft. They could be used in cars, commercial powerplants and personal electronics. Development into fuel cells for emissions-free aircraft, the International Space Station, reusable launch vehicles, a Mars airplane and a space shuttle upgrade as well as systems for producing and storing energy on the moon and Mars will enable new space exploration missions, fuel savings, quiet operation and reduced emissions for aircraft. Fuel cell research could lead to new flight capabilities, electric power for long-term exploration beyond Earth's orbit, more efficient cars and trucks and a cleaner environment.



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Impact can also be measured in terms of progress towards the following UN Global Goals.

- 6 - Clean water and sanitation
- 7 - Renewable energy
- 11 - Sustainable cities and communities
- 13 - Climate action
- 15 - Life on land

Links to additional resources for this topic			
Impacts Student Problem Powerpoint	Impacts Lesson Pack Impacts Lesson Pack Resource Arval Questions Impacts Lesson Pack Resource Revision Cards Impacts Lesson Pack Resource Flash Cards	Kahoot Quiz	



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Impact videos

2.14 Environmental impact and sustainability goals-clear animation English with all subs

<https://youtu.be/v8IW4D5cN50>



17.55 The impact of decarbonising the gas grid – Leeds H21 Project English with all subs

<https://youtu.be/dUKAMQ-c0Uc>

<https://youtu.be/dUKAMQ-c0Uc>



2.57 – Blair Project Case Study – English

https://youtu.be/J8w2QhvybJ0?list=PLqbeVp0f_7KsbFe4mYIO8JjEIPaYBWWsj



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